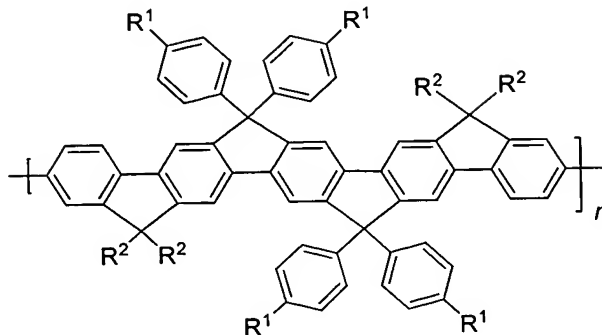


CLAIMS

What is claimed is:

1. A polymer having the structure:

5



wherein:

R¹ is the same or different at each occurrence and is selected from hydrogen, C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₂-C₂₀ alkynyl, C₁-C₂₀ alkoxy, C₁-C₂₀ oxyalkyl, C₂-C₂₀ oxyalkenyl, C₂-C₂₀ oxyalkynyl, C₁-C₂₀ fluorinated alkyl, C₂-C₂₀ fluorinated alkenyl, C₁-C₂₀ fluorinated oxyalkyl, C₂-C₂₀ fluorinated oxyalkenyl, C₂-C₂₀ fluorinated oxyalkynyl, aryl, heteroalkyl, heteroalkenyl, heteroalkynyl, heteroaryl, -CN, -OR³, -CO₂R³, -SR³, -N(R³)₂, -P(R³)₂, -SOR³, -SO₂R³, and -NO₂; or adjacent R groups together can form a 5- or 6-membered cycloalkyl, aryl, or heteroaryl ring,

R² is the same or different at each occurrence and is selected from C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₂-C₂₀ alkynyl, C₁-C₂₀ alkoxy, C₁-C₂₀ oxyalkyl, C₂-C₂₀ oxyalkenyl, C₂-C₂₀ oxyalkynyl, C₁-C₂₀ fluorinated alkyl, C₂-C₂₀ fluorinated alkenyl, C₁-C₂₀ fluorinated oxyalkyl, C₂-C₂₀ fluorinated oxyalkenyl, C₂-C₂₀ fluorinated oxyalkynyl, heteroalkyl, heteroalkenyl, heteroalkynyl, -CN, -OR³, -CO₂R³, -SR³, -N(R³)₂, -P(R³)₂, -SOR³, -SO₂R³, and -NO₂; or adjacent R groups together can form a 5- or 6-membered cycloalkyl or heterocycloalkyl ring, and

R³ is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from hydrogen, alkyl, aryl, heteroalkyl and heteroaryl; and

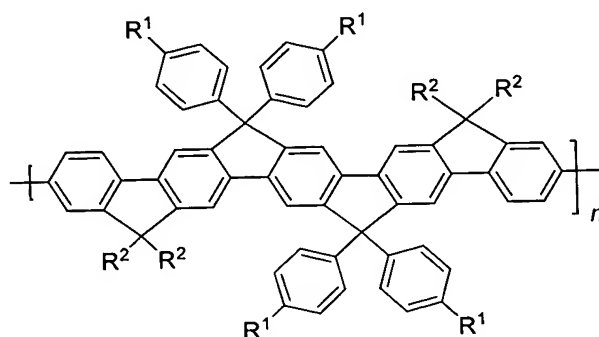
n is greater than 2.

2. A polymer according to Claim 1, wherein n is greater than 10.
 3. A polymer according to Claim 1, wherein R¹ is a C₁-C₂₀ alkyl.
 4. A polymer according to Claim 1, wherein R² is a C₁-C₂₀ alkyl.

30

5. A polymer according to Claim 1, wherein the polymer has an emission maximum less than 500 nm.

6. An electronic device comprising an active layer positioned between two electrical contact layers, wherein the active layer comprises a polymer having the structure:



wherein:

R¹ is the same or different at each occurrence and is selected from hydrogen, C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₂-C₂₀ alkynyl, C₁-C₂₀ alkoxy, C₁-C₂₀ oxyalkyl, C₂-C₂₀ oxyalkenyl, C₂-C₂₀ oxyalkynyl, C₁-C₂₀ fluorinated alkyl, C₂-C₂₀ fluorinated alkenyl, C₁-C₂₀ fluorinated oxyalkyl, C₂-C₂₀ fluorinated oxyalkenyl, C₂-C₂₀ fluorinated oxyalkynyl, aryl, heteroalkyl, heteroalkenyl, heteroalkynyl, heteroaryl, -CN, -OR³, -CO₂R³, -SR³, -N(R³)₂, -P(R³)₂, -SOR³, -SO₂R³, and -NO₂; or adjacent R groups together can form a 5- or 6-membered cycloalkyl, aryl, or heteroaryl ring,

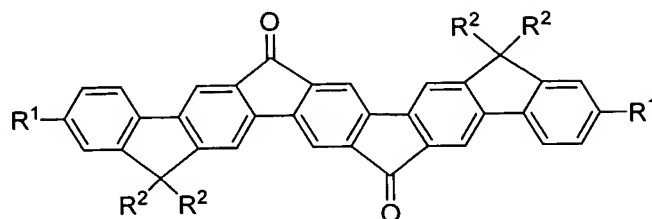
R² is the same or different at each occurrence and is selected from C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₂-C₂₀ alkynyl, C₁-C₂₀ alkoxy, C₁-C₂₀ oxyalkyl, C₂-C₂₀ oxyalkenyl, C₂-C₂₀ oxyalkynyl, C₁-C₂₀ fluorinated alkyl, C₂-C₂₀ fluorinated alkenyl, C₁-C₂₀ fluorinated oxyalkyl, C₂-C₂₀ fluorinated oxyalkenyl, C₂-C₂₀ fluorinated oxyalkynyl, heteroalkyl, heteroalkenyl, heteroalkynyl, -CN, -OR³, -CO₂R³, -SR³, -N(R³)₂, -P(R³)₂, -SOR³, -SO₂R³, and -NO₂; or adjacent R groups together can form a 5- or 6-membered cycloalkyl or heterocycloalkyl ring, and

R³ is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from hydrogen, alkyl, aryl, heteroalkyl and heteroaryl; and

n is greater than 2.

7. An electronic device according to Claim 5, wherein the device emits light at a wavelength less than 500 nm.

8. A compound having the structure:



- R¹ is the same or different at each occurrence and is selected
- 5 from hydrogen, C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₂-C₂₀ alkynyl, C₁-C₂₀ alkoxy, C₁-C₂₀ oxyalkyl, C₂-C₂₀ oxyalkenyl, C₂-C₂₀ oxyalkynyl, C₁-C₂₀ fluorinated alkyl, C₂-C₂₀ fluorinated alkenyl, C₁-C₂₀ fluorinated oxyalkyl, C₂-C₂₀ fluorinated oxyalkenyl, C₂-C₂₀ fluorinated oxyalkynyl, aryl, heteroalkyl, heteroalkenyl, heteroalkynyl, heteroaryl, -CN, -OR³, -CO₂R³, -
- 10 SR³, -N(R³)₂, -P(R³)₂, -SOR³, -SO₂R³, and -NO₂; or adjacent R groups together can form a 5- or 6-membered cycloalkyl, aryl, or heteroaryl ring,
- R² is the same or different at each occurrence and is selected
- from C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₂-C₂₀ alkynyl, C₁-C₂₀ alkoxy, C₁-C₂₀ oxyalkyl, C₂-C₂₀ oxyalkenyl, C₂-C₂₀ oxyalkynyl, C₁-C₂₀ fluorinated alkyl,
- 15 C₂-C₂₀ fluorinated alkenyl, C₁-C₂₀ fluorinated oxyalkyl, C₂-C₂₀ fluorinated oxyalkenyl, C₂-C₂₀ fluorinated oxyalkynyl, heteroalkyl, heteroalkenyl, heteroalkynyl, -CN, -OR³, -CO₂R³, -SR³, -N(R³)₂, -P(R³)₂, -SOR³, -SO₂R³, and -NO₂; or adjacent R groups together can form a 5- or 6-membered cycloalkyl or heterocycloalkyl ring, and
- 20 R³ is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from hydrogen, alkyl, aryl, heteroalkyl and heteroaryl.